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10/574,664	03/31/2006	Tsuneyuki Kikuchi	N0029.1749	7638

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EXAMINER	
MEHRPOUR, NAGHMEH	
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DETAILED ACTION

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/574,664
Filing Date: March 31, 2006
Appellant(s): KIKUCHI, TSUNEYUKI

Joseph W. Ragusa
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01/06/10 appealing from the Office action mailed 02/26/09.

(1) Real Party in Interest

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

20030087643	**Mazzara**	**05-2003**
20050048985	**Haartsen**	**03-2005**

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-26, are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazzara (US publication 2003/0087643 A1) in view of Haartsen (US Publication 2005/00489895).

Regarding claims 1, 10, 11, 26, Mazzara teaches a wireless line sharing network system in a mobile communication network system capable of a plurality of communications at licensed radio frequencies, comprising:

a plurality of user terminals that subscribe to a plurality of communication carriers, respectively (0024, 0025, 0026);

a plurality of wireless base stations capable of communicating with the respective user terminals at the radio frequencies (0025, 0026);

a control station for controlling the wireless base stations and connecting each of the user terminals to a corresponding communication carrier network (0041); and

a call acceptance controller for, when there is a request for call connection to a user terminal, accepting the call as well as reserving bandwidth in response to the call connection request based on at least carrier band information indicating radio bandwidth allocation patterns defined by the respective communication carriers on a contract and carrier use condition information indicating the current use conditions of the bandwidth of the respective communication carriers (0033, 0036, 0037). Mazzara inherently teaches updating the carrier use condition information (0009, 0010, 0011).

Mazzara does not specifically mention that the system comprising a bandwidth change means for sequentially changing bandwidths allocated to call connected user terminals so that the used bandwidth of each of the communication carriers is in a predetermined range based on at least the carrier band information, the carrier use condition information and user use condition information indicating the current use conditions of the call connected ones of the user terminals.

However, Haartsen teaches a system comprising a bandwidth change means for sequentially changing bandwidths allocated to call connected user terminals so that the used bandwidth of each of the communication carriers is in a predetermined range based on at least the carrier band information, the carrier use condition information and user use condition information indicating the current use conditions of the call connected ones of the user terminals (0019, 0020). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Haartsen with Mazzara, in order to control the channel allocation and synchronization over variety of interfaces.

Regarding claims 2, 19, Mazzara teaches a wireless line sharing network system as claimed in claim 1, wherein the call acceptance controller updates the bandwidth reserved by using licensed band information of a communication carrier network corresponding to the user terminal concerning the call connection request (0035).

Regarding claim 3, Mazzara teaches a wireless line sharing network system as claimed in claim 1, further comprising a bandwidth determination means for determining bandwidth for the call connection request based on bandwidth commonly indicated in user support band information of the user terminal contained in the call connection request, licensed band information of a corresponding communication carrier network concerning the call connection request and carrier support band information on predetermined bands supported by the respective communication carriers with respect to each service (0041, 0042).

Regarding claims 4, 12, 20, Mazzara teaches a wireless line sharing network system wherein the bandwidth determination means includes:
a bandwidth list generation means for generating a list of at least one selectable bandwidth based on the user support band information, the licensed band information and the carrier support band information (0124,0146, 0148); and
a determination means for selecting bandwidth from the bandwidth list in descending order, and determining the selected bandwidth as bandwidth for the call connection request when the selected bandwidth is not greater than idle bandwidth obtained from the carrier use condition information (0093, 0148).

Regarding claims 6, 14, 22, Mazzara does not specifically mention that a wireless line sharing network system further comprising a bandwidth change means for sequentially selecting call connected user terminals in descending order of bandwidths allocated to the user terminals based on user use condition information, and changing the bandwidth allocated to the call connected user terminal so that the used bandwidth of each of the communication carriers is in a predetermined range according to the bandwidth list corresponding to the selected user terminal. However, Haartsen teaches a wireless line sharing network system further comprising a bandwidth change means for sequentially selecting call connected user terminals in descending order of bandwidths allocated to the user terminals based on user use condition information, and changing the bandwidth allocated to the call connected user terminal so that the used bandwidth of each of the communication carriers is in a predetermined range according to the bandwidth list corresponding to the selected user terminal (0019, 0020). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Haartsen with Mazzara, in order to control the channel allocation and synchronization over variety of interfaces.

Regarding claims 7, 15, 23, Mazzara teaches a network system as claimed in claim 1, further comprising a mediator controller for, in the case where bandwidth cannot be reserved for the call connection request, mediating between a communication carrier with insufficient bandwidth and a communication carrier with excess bandwidth based on the carrier band information and the carrier use condition information so that the

communication carrier with excess bandwidth leases idle bandwidth to the communication carrier with insufficient bandwidth (0042, 0043).

Regarding claims 8, 16, 24, Mazzara teaches a network system as claimed in claim 1, further comprising a mediator controller for, in the case where the use of radio bandwidth exceeds the predetermined percentage of the radio bandwidth defined by contract in a communication carrier, mediating between the communication carrier with insufficient bandwidth and a communication carrier with excess bandwidth so that the communication carrier with excess bandwidth leases idle bandwidth to the communication carrier with insufficient bandwidth (0041,0042, 0043, 0048).

Regarding claims 9, 17, 25, Mazzara teaches a network system as claimed in claim 1, further comprising an accounting controller for charging each of the communication carriers based on the lease agreement concluded with the carrier (0006, 0010, 0011).

(10) Response to Argument

Response to Arguments

Appellant's arguments filed 01/06/10 have been fully considered but they are not persuasive.

Appellant's main argument appears to be "*Mazzara does not teach the recited bandwidth change means", and Haartsen does not sequentially changing bandwidths allocated to call connected user terminals so that the used bandwidth of each of the communication carriers is in a predetermined range based on at least the carrier band information, the carrier use condition information and user use condition information indicating the current use conditions of the call connected ones of the user terminals."*

Appellant agrees that "..*Haartsen does sequentially assign something, i.e., remote terminals to available base station radios…",* However, appellant continues by arguing their main point, i.e., *".. it does not, inter alia, sequentially change bandwidths allocated to call connected user terminals, as required by independent claim 1."*

The Examiner agrees that the Mazzara reference does not specifically mention that the system comprising a bandwidth change means for sequentially changing bandwidths allocated to call connected user terminals so that the used bandwidth of each of the communication carriers is in a predetermined range based on at least the

carrier band information, the carrier use condition information and user use condition information indicating the current use conditions of the call connected ones of the user terminals. The Examiner states that the Mazzara reference was not cited for this limitation.

However, Haartsen was cited as teaching a system comprising a bandwidth change means for sequentially changing bandwidths allocated to call connected user terminals so that the used bandwidth of each of the communication carriers is in a predetermined range based on at least the carrier band information, the carrier use condition information and user use condition information indicating the current use conditions of the call connected ones of the user terminals. The examiner specifically referenced paragraphs [0019] and [0020] of Haartsen, however, these paragraphs merely provide a brief summary of the disclosed system of Haartsen.

One skilled in the art would have certainly understood that the allocation of bandwidth ratios, results in the allocation of bandwidths, i.e., X amount of bandwidth as compared to the overall available bandwidth, results in a bandwidth ratio. This allocated amount is still an allocation of bandwidth, just measured as a ratio of the overall bandwidth available (***responsive to Appellant's first argument on page 10 of their brief)***.

Secondly, and with respect to Appellant's second argument that Haartsen's system *"..does not, inter alia, sequentially change bandwidths allocated to call connected user terminals…"*, one skilled in the art would further have understood that while bandwidth may be allocated as set forth in the summary of paragraphs [0019] and

[0020], this is not a one-time, permanent allocation. Calls/service may be requested (via new or existing subscribers), dropped, altered, etc. This is a dynamic and continuous process. This point is emphasized by the Haartsen reference, i.e., wherein the first paragraph of the disclosed invention clearly states:

> "***A TDD communication system in accordance with Applicant's invention is very flexible when it comes to providing data services because bandwidth can be allocated and re-allocated dynamically among system users by assigning and re-assigning time slots on the carrier signals to the users according to the user's needs.***"

Appellant recognizes and agrees that Haartsen teaches sequential assigning, i.e., referencing the last paragraph of Appellant's brief on page 10, Appellant does not apparently see or agree with this being a dynamic process. Clearly there is a finite amount of bandwidth available, either allocated to the base station radios or the system in total. If a caller's needs change and bandwidth is dynamically re-allocated to users as stated in Haartsen, then this changes the remaining ratio of bandwidth that is available to other users of the system/area. Therefore, based upon user requests, Haartsen would suggest to one skilled in the art, at the time of invention, going back through the sequential assignment process and re-allocating bandwidth ratios accordingly.

Given the above explanation of the reference(s), in relation to and addressing each of Appellant's arguments, it is believed that the rejections should be sustained.

(11) Related Proceeding(s)Appendix

No decision rendered by a court or the Board is identified by the examiner in the

Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

/MELODY MEHRPOUR/

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